

INDIVIDUALIZED INSTRUCTIONAL STUDENT PLAN

ABE Mathematics: TABE Level M

STUDENT: _____ I.D.: _____
 TEACHER: _____ COURSE: _____ DATE: _____

CURRENT TESTING INFORMATION: **POST-TESTING INFORMATION:**

Test Date: _____
 Current Test Level: E M
 Current Test Form: 11 12
 NRS Level & Scale Score: 2 (449-495) 3 (496-536)

TABE Level: M
 CCR Level: C
 Grade Level Correlation: 4-5, +6

DOMAIN: Number & Operations in Base Ten (15%) SCORED PROFICIENCY: Non-Proficiency
CATEGORY: Number & Operations in Base Ten (NBT) Partial Proficiency
Questions: 5 Proficiency

| CCRS Category | TABE Category | TABE Skill | Emphasis | Aligned CCRS | Mastery Date |
|---|--|---|----------|--------------|--------------|
| Generalize Place Value Understanding for Multi-digit Whole Numbers | Understand place value | ✚ Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. | Medium | 4.NBT.1 | |
| | | ✚ Use place value understanding to round multi-digit whole numbers to any place. | Low | 4.NBT.3 | |
| Use Place Value Understanding & Properties of Operations to Perform Multi-digit Arithmetic | Perform Multi-digit Arithmetic | ✚ Create & use multiple representations of addition & subtraction of multi-digit numbers, including those with more than 3 digits, based on place value & connect these representations to the standard algorithms (especially where regrouping is required). | Low | 4.NBT.4 | |
| | | ✚ Multiply a whole number of up to 4 digits by a one-digit whole number, & multiply 2 two-digit numbers, using strategies based on place value & properties of operations. Illustrate & explain calculation by using equations, rectangular arrays, &/or area models. | Low | 4.NBT.5 | |
| | Find quotients and remainders | Use various strategies to divide two-, three-, and four-digit numbers by one- and two-digit numbers | Low | 4.NBT.6 | |
| Understand the Place Value System | Understand place value | Compare the values of digits in multi-digit numbers and observing patterns | Medium | 5.NBT.3a | |
| | | Create & use models for decimals & use properties of operations to add & subtract decimals to hundredths place | | | |
| | | ✚ Create & use multiple representations of multi-digit decimals based on place value | | | |
| | Understand decimals | Create & use models for decimals & use properties of operations to multiply & divide decimals to hundredths place | | | |
| | | Create models of decimals and use decimal notation | | | |
| | | Examine relationships between decimals, fractions, & whole numbers | | | |
| Compare & compose tens | Compare decimals to the thousandths place | Medium | 5.NBT.3b | | |
| Round | Round multi-digit numbers to the thousands and ten thousands places and examine the values of the digits in each place | Low | 5.NBT.4 | | |

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| DOMAIN: Number & Operations in Base Ten ...continued | | | | | |
|--|------------------------|--|----------|--------------|--------------|
| CCRS Category | TABE Category | TABE Skill | Emphasis | Aligned CCRS | Mastery Date |
| Perform Operations with Multi-digit Whole Numbers & with Decimals to Hundredths | Add whole numbers | ✚ Fluently multiply multi-digit whole numbers using the standard algorithm. | Low | 5.NBT.5 | |
| | | Use various strategies for adding numbers with up to four digits | Low | 5.NBT.7 | |
| | | Use various strategies for adding numbers, including decimals, with up to six digits | | | |
| | Multiply whole numbers | Use various strategies to multiply three- and four-digit numbers by one-digit numbers | Low | 5.NBT.7 | |
| | | Use various strategies to multiply two-, three-, and four-digit numbers by one-, two-, and three-digit numbers | | | |

| DOMAIN: Number & Operations - Fractions (20%) | | | | | |
|--|---------------------|--|--|-------------------------------|--------------|
| CATEGORY: Number & Operations – Fractions (NF) | | | SCORED PROFICIENCY: | | |
| # Questions: 7 | | | <input type="checkbox"/> Non-Proficiency <input type="checkbox"/> Partial Proficiency <input type="checkbox"/> Proficiency | | |
| CCRS Category | TABE Category | TABE Skill | Emphasis | Aligned CCRS | Mastery Date |
| Extend Understanding of Fraction Equivalence & Ordering | Evaluate fractions | ✚ Use multiple representations to create equivalent fractions, especially with denominators other than 1, 2, 3, 4, 6, and 8 | Low | 4.NF.1 | |
| Build Fractions from Unit Fractions by Applying & Extending Previous Understanding of Operations on Whole Numbers | Add fractions | ✚ Compose and decompose fractions using addition and subtraction | Medium | 4.NF.3a | |
| | | ✚ Solve simple, one-step, real-world problems involving addition and subtraction of fractions with the same denominators | Medium | 4.NF.3b 4.NF.3c 4.NF.3d | |
| | Multiply fractions | ✚ Understand a fraction a/b as a multiple of $1/b$. For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$. | Medium | 4.NF.4a | |
| Express repeated addition of unit fractions as multiplication expressions (e.g., $1/5 + 1/5 + 1/5 = 3 \times 1/5 = 3/5$) | | Medium | 4.NF.4b | | |
| ✚ Understand a fraction a/b as a multiple of $1/b$. For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$. | | Medium | 4.NF.4c | | |
| Understand Decimal Notation for Fractions, & Compare Decimal Fractions | Understand decimals | Use visual representations to compare decimals to the hundredths place | Medium | 4.NF.7 | |
| | | Use visual representations to create models of decimals and connect these to fractions | | | |
| Use Equivalent Fractions as Strategy to Add & Subtract Fractions | Add fractions | Solve simple, one-step, real-world problems involving addition & subtraction of fractions with different denominators | Low | 5.NF.2 | |
| Apply & Extend Previous Understanding of Multiplication & Division to Multiply & Divide Fractions | Multiply fractions | ✚ Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. | Medium | 5.NF.4 | |
| | | ✚ Explaining why multiplying given number by a fraction >1 results in product $>$ given number (recognizing multiplication by whole numbers >1 as familiar case); explaining why multiplying given number by fraction <1 results in product smaller than given number; & relating principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to effect of multiplying a/b by 1. | Low | 5.NF.5b | |

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| DOMAIN: Number & Operations Fractions ...continued | | | | | |
|--|---|---|----------------------|-----------------------------|---------------------|
| CCRS Category | TABE Category | TABE Skill | Emphasis | Aligned CCRS | Mastery Date |
| Apply & Extend Previous Understanding of Multiplication & Division to Multiply & Divide Fractions | Divide fractions | Express the division of two whole numbers as a fraction in a real-world context | Low | 5.NF.3 | |
| | | Use visual representations to show division of a unit fraction by a whole number | Medium | 5.NF.7b | |
| | | Use visual representations to show division of a whole number by a unit fraction | | | |
| | Add fractions Multiply fractions Divide fractions | Solve simple, one-step, real-world problems involving addition or subtraction of fractions with different denominators or multiplication or division involving a unit fraction | Low Low Medium | 5.NF.2 5.NF.6 5.NF.7 | |
| | | Solve real-world problems involving addition, subtraction, multiplication, or division of fractions with different denominators | Low Medium Low | 5.NF.2 4.NF.4b 5.NF.3 | |
| | Evaluate fractions | Reason about the size of a product in relation to one of its factors given information about the other factor (e.g., fraction greater than, equal to, or less than 1) | Medium | 5.NF.7a | |
| | | ✚ Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. | | | |
| | | ✚ Solve real world problems involving division of unit fractions by non-zero whole numbers & division of whole numbers by unit fractions, e.g., by using visual fraction models & equations to represent the problem. | Medium | 5.NF.7c | |

| DOMAIN: Operations & Algebraic Thinking (12%) | | | | | |
|---|---|---|-----------------|---------------------|---------------------|
| CATEGORY: Operations & Algebraic Thinking (OA) | | | | | |
| # Questions: 4 | | | | | |
| SCORED PROFICIENCY: <input type="checkbox"/> Non-Proficiency | | | | | |
| <input type="checkbox"/> Partial Proficiency | | | | | |
| <input type="checkbox"/> Proficiency | | | | | |
| CCRS Category | TABE Category | TABE Skill | Emphasis | Aligned CCRS | Mastery Date |
| Use the Four Operations with Whole Numbers to Solve Problems | Multiply whole numbers | Use expressions and equations to represent multiplicative relationships expressed in words | Medium | 4.OA.1 | |
| | Apply properties of operations: multiplication and division | Create, compare, & analyze multiple solution strategies & representations to investigate the relationship between multiplication & division of whole numbers | Medium | 4.OA.2 | |
| | Evaluate expressions | Solve multi-step, real-world problems involving addition, subtraction, multiplication, &/or division of whole numbers using visual representations to show process Write and use two-step equations involving addition, subtraction, multiplication, division, and grouping symbols that represent real-world situations | Low | 4.OA.3 | |
| Gain Familiarity with Factors & Multiples | Understand prime & composite numbers | Identify prime and composite numbers | Low | 4.OA.4 | |
| Generate & Analyze Patterns | Understand and apply pattern rules | Create & analyze number patterns with addition rules to investigate how they relate to multiplication & division | Low | 4.OA.5 | |
| | | Create number patterns with addition rules to investigate how they relate to multiplication & division | | | |
| | | Investigate patterns and properties of prime and composite numbers | | | |

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| DOMAIN: Operations & Algebraic Thinking ...continued | | | | | |
|---|----------------------|--|----------|--------------|--------------|
| CCRS Category | TABE Category | TABE Skill | Emphasis | Aligned CCRS | Mastery Date |
| Write & Interpret Numerical Expressions | Evaluate expressions | Solve multi-step equations involving addition, subtraction, multiplication, division, and grouping symbols without context | Low | 5.OA.1 | |
| | | Write and solve expressions and equations to represent real-world situations | | | |
| | | Write and solve multi-step, real-world problems involving addition, subtraction, multiplication, division, and grouping symbols | | | |
| | | Write multi-step equations with rational numbers involving addition, subtraction, multiplication, division, and grouping symbols to represent real-world situations and use them to solve problems | | | |

| DOMAIN: Geometry (10%) | | SCORED PROFICIENCY: | | | |
|---|--|---|----------|--------------|--------------|
| CATEGORY: Geometry (G) | | <input type="checkbox"/> Non-Proficiency | | | |
| # Questions: 4 | | <input type="checkbox"/> Partial Proficiency | | | |
| # Questions: 4 | | <input type="checkbox"/> Proficiency | | | |
| CCRS Category | TABE Category | TABE Skill | Emphasis | Aligned CCRS | Mastery Date |
| Draw & Identify Lines & Angles & Classify Shapes by Properties of their Lines & Angles | Know geometric shapes, figures, and attributes | Recognize points, lines, line segments, and angles and their relationships to each other (e.g., a point lies on a line) when presented in polygons and diagrams | Medium | 4.G.1 | |
| | | Recognize points, lines, line segments, angles, and parallel and perpendicular lines in the coordinate plane | | | |
| | | Recognize points, lines, line segments, angles, and parallel and perpendicular lines in polygons and in diagrams other than those of polygons | | | |
| Graph Points on the Coordinate Plane to Solve Real-world & Mathematical Problems | Know coordinate values and grid quadrants | Identify coordinates of points & plot points with whole number coordinates in 1 st quadrant of coordinate plane | Low | 5.G.1 | |
| | | Name parts of ordered pairs and what they describe (e.g., x-coordinate, y-coordinate) | | | |
| | | Plot points and draw polygons with integer coordinates in the coordinate plane | | | |
| | | Draw polygons with vertices at whole number coordinates in the coordinate plane | | | |
| Classify Two-dimensional Figures into Categories Based on their Properties | Know geometric shapes, figures, and attributes | Distinguish common and non-common attributes of pairs or groups of shapes | Low | 5.G.3 | |
| | | Distinguish common and non-common attributes of pairs or groups of shapes using pictures, diagrams, and words | | | |
| | | Explore the effects of simple transformations (90 or 180 degree rotations, reflections, and translations) on common plane figures | | | |
| Solve Real-world & Mathematical Problems Involving Area, Surface Area, & Volume | Know geometric shapes, figures, and attributes | Recognize and use right triangles drawn in the coordinate plane to solve problems | Low | 6.G.4 | |
| | | Identify and create nets for given prisms and pyramids | | | |

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| DOMAIN: Measurement & Data (15%) CATEGORY: Measurement & Data (MD) # Questions: 6 | | SCORED PROFICIENCY: <input type="checkbox"/> Non-Proficiency <input type="checkbox"/> Partial Proficiency <input type="checkbox"/> Proficiency | | | |
|--|--|---|----------|--------------|--------------|
| CCRS Category | TABE Category | TABE Skill | Emphasis | Aligned CCRS | Mastery Date |
| Solve Problems Involving Measurement & Conversion of Measurements from a Large Unit to a Smaller Unit | Evaluate perimeter and area | Find the missing side length of a rectangle given one side length and the area or perimeter | N/A | 4.MD.3 | |
| Geometric Measurement: Understanding Concepts of Angle & Measure Angles | Calculate and interpret volume | + An angle that turns through n one-degree angles is said to have an angle measure of n degrees. | Low | 4.MD.5 | |
| | Identify and measure angles | + Extend the use of measuring tools to include measuring angles with protractors | Medium | 4.MD.6 | |
| | | Measure angles to the nearest degree using a Protractor and create angles with given measures | Medium | 4.MD.7 | |
| | | Use the properties of angles to write & solve equations in one variable to find missing angle measures in diagrams | | | |
| Use properties of complementary and supplementary angles to find missing angle measures in diagrams | | | | | |
| Convert Like Meas. Units Within a Given Measurement Sys. | Converting units of measure | Convert from larger unit of measure to smaller unit of measure | Medium | 5.MD.1 | |
| Represent & Interpret Data | Understand line plots | Use line plots to solve simple addition & subtraction problems | Low | 5.MD.2 | |
| | | Use line plots to solve multi-step addition, subtraction, multiplication, and division problems | | | |
| + Create line plots from given data sets and explain simple characteristics | | | | | |
| Solve problems using scaled bar graph | + Use visual representations of arithmetic operations to bridge the concrete to the abstract (e.g., number line diagrams, area models, etc.) | | | | |
| Geometric Measurement: Understand Concepts of Volume and Relate Volume to Multiplication and to Addition | Calculate and interpret volume | Extend the idea of using unit squares to find areas of rectangles to using unit cubes to find volumes of rectangular prisms | Low | 5.MD.4 | |
| | | Find volumes of rectangular prisms by counting unit cubes & multiplying side lengths (using volume formula) | Medium | 5.MD.5a | |
| | | Find the missing dimension of a rectangular prism when given the other dimensions and the volume | Medium | 5.MD.5b | |
| | | Create rectangular prisms with different dimensions and volumes that are the same | | | |
| | | + Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems | Medium | 5.MD.5c | |

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| DOMAIN: Expressions & Equations (15%) CATEGORY: Expressions & Equations (EE) # Questions: 4 | | SCORED PROFICIENCY: <input type="checkbox"/> Non-Proficiency <input type="checkbox"/> Partial Proficiency <input type="checkbox"/> Proficiency | | | |
|--|--|--|--|--------------|--------------|
| CCRS Category | TABE Category | TABE Skill | Emphasis | Aligned CCRS | Mastery Date |
| Apply & Extend Previous Understandings of Arithmetic to Algebraic Expressions | Interpret linear & quadratic equations, expressions, & functions | Solve one- and two-step equations involving addition, subtraction, multiplication, and/or division of whole numbers while using visual representations to show the process | Low | 6.EE.2a | |
| | Evaluate equations and inequalities | Solve 1- and 2-step equations involving addition, subtraction, multiplication, &/or division of whole numbers using visual representations to show process | | | |
| | Evaluate expressions | Write simple expressions and equations to represent real-world situations | | | |
| | | Identify and name parts of expressions and equations (e.g., terms, coefficient, variable, etc.) | Low | 6.EE.2b | |
| | Apply properties of operations | | ✚ Apply the properties of operations to generate equivalent expressions. | Low | 6.EE.3 |
| ✚ Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). | | | Low | 6.EE.4 | |
| Reason About & Solve One-Variable Equations & Inequalities | Evaluate equations and inequalities | Use properties of addition and multiplication to justify steps in solving an equation | | | |
| | | Write & solve multi-step equations involving addition, subtraction, multiplication, division, the distributive property, & exponents (squares & cubes) w rational numbers | Low | 6.EE.5 | |
| | Evaluate expressions | Solve multi-step equations involving addition, subtraction, multiplication, & division of rational numbers | | | |
| | | Write & solve expressions & equations to represent verbal descriptions (e.g., product of twice a number, n, and 6) and real-world situations | Low | 6.EE.6 | |
| | | Write and solve expressions and equations involving the distributive property or combining like terms | | | |
| | Evaluate equations and inequalities | Use inverse operations to show steps in solving equations | Low | 6.EE.7 | |
| Write equations and inequalities | | ✚ Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams. | Low | 6.EE.8 | |
| | | ✚ Use variables to represent 2 quantities in a real-world problem that change in relationship to one another; write an equation to express 1 quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze 1 relationship between dependent & independent variables using graphs & tables, & relate these to the equation. | Low | 6.EE.9 | |
| Represent & Analyze Quantitative Relationships B/T Dependent & Independent Variables | | | | | |

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|--|---|
| DOMAIN: Statistics & Probability (5%) | SCORED PROFICIENCY: <input type="checkbox"/> Non-Proficiency |
| CATEGORY: Statistics & Probability (SP) | <input type="checkbox"/> Partial Proficiency |
| # Questions: No Questions Identified | <input type="checkbox"/> Proficiency |

This Domain has no questions represented on the Mathematics TABE Level M test; however, it has been included since it is identified as a tested domain in the TABE Blue Prints.

| CCRS Category | TABE Skill | Emphasis | Aligned CCRS | Mastery Date |
|--|--|----------|--------------|--------------|
| Develop Understanding of Statistical Variability | ✦ Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. | Medium | 6.SP.1 | |
| | ✦ Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape. | Low | 6.SP.2 | |
| Summarize & Describe Distributions | ✦ Display numerical data in plots on a number line, including dot plots, histograms, and box plots. | Low | 6.SP.4 | |

| | |
|---|---|
| DOMAIN: Ratios & Proportional Relationships (3%) | SCORED PROFICIENCY: <input type="checkbox"/> Non-Proficiency |
| CATEGORY: Ratios & Proportional Relationships (RP) | <input type="checkbox"/> Partial Proficiency |
| # Questions: No Questions Identified | <input type="checkbox"/> Proficiency |

This Domain has no questions represented on the Mathematics TABE Level M test; however, it has been included since it is identified as a tested domain in the TABE Blue Prints.

| CCRS Category | TABE Skill | Emphasis | Aligned CCRS | Mastery Date |
|---|--|----------|--------------|--------------|
| Understand Ratio Concepts & Use Ratio Reasoning to Solve Problems | ✦ Understand concept of a unit rate a/b associated with a ratio $a:b$ with b not equal to 0, and use rate language in the context of a ratio relationship. | Medium | 6.RP.2 | |

| | |
|---|---|
| DOMAIN: The Number System (5%) | SCORED PROFICIENCY: <input type="checkbox"/> Non-Proficiency |
| CATEGORY: The Number System (NS) | <input type="checkbox"/> Partial Proficiency |
| # Questions: No Questions Identified | <input type="checkbox"/> Proficiency |

This Domain has no questions represented on the Mathematics TABE Level M test; however, it has been included since it is identified as a tested domain in the TABE Blue Prints.

| CCRS Category | TABE Category | TABE Skill | Emphasis | Aligned CCRS | Mastery Date |
|--|---------------------------------|--|----------|--------------|--------------|
| Apply & Extend Previous Understandings of Multiplication & Division to Divide Fractions by Fractions | Divide fractions | ✦ Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. | Low | 6.NS.1 | |
| Compute Fluently with Multi-digit Numbers & Find Common Factors & Multiples | Find common factors & multiples | ✦ Fluently divide multi-digit numbers using the standard algorithm | Medium | 6.NS.2 | |
| | | ✦ Find greatest common factor of 2 whole numbers ≤ 100 & least common multiple of 2 whole numbers ≤ 12 . Use distributive property to express a sum of 2 whole numbers 1 - 100 with a common factor as a multiple of a sum of 2 whole numbers with no common factor. | Low | 6.NS.4 | |

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Correlated CCR Anchor/Substandards & Descriptions

Number & Operations in Base Ten

- 4.NBT.1 **+** Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70 = 10$ by applying concepts of place value and division.
- 4.NBT.3 **+** Use place value understanding to round multi-digit whole numbers to any place.
- 4.NBT.4 **+** Fluently add and subtract multi-digit whole numbers using the standard algorithm.
- 4.NBT.5 **+** Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- 4.NBT.6 Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.**
- 5.NBT.3 Read, write, and compare decimals to thousandths.**
- 5.NBT.3a Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.
- 5.NBT.3b Compare 2 decimals to thousandths based on meanings of digits in each place, using $>$, $=$, and $<$ symbols to record results of comparisons.
- 5.NBT.4 Use place value understanding to round decimals to any place.**
- 5.NBT.5 Fluently multiply multi-digit whole numbers using the standard algorithm**
- 5.NBT.7 Add, subtract, multiply, & divide decimals to hundredths, using concrete models or drawings & strategies based on place value, properties of operations, &/or the relationship between addition & subtraction; relate the strategy to a written method & explain the reasoning used.**

Number & Operations - Fractions

- 4.NF.1 **+** Explain why fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number & size of the parts differ even though 2 fractions themselves are the same size. Use this principle to recognize & generate equivalent fractions.
- 4.NF.3 **+** Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$
- 4.NF.3a **+** Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
- 4.NF.3b **+** Decompose a fraction into sum of fractions w/ same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using visual fraction model. ($3/8 = 1/8 + 1/8 + 1/8$; $3/8 = 1/8 + 2/8$; $2 \frac{1}{8} = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8$.)
- 4.NF.3c **+** Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
- 4.NF.3d **+** Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
- 4.NF.4 **+** Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
- 4.NF.4a **+** Understand a fraction a/b as a multiple of $1/b$. For example, use a visual fraction model to represent $5/4$ as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$.
- 4.NF.4b Understand a multiple of a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express $3 \times (2/5)$ as $6 \times (1/5)$, recognizing this product as $6/5$. (In general, $n \times (a/b) = (n \times a)/b$.)
- 4.NF.4c **+** Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models & equations to represent the problem. For example, if each person at a party will eat $3/8$ of a pound of roast beef, & there will be 5 people at the party, how many pounds of roast beef will be needed? Between what 2 whole numbers does your answer lie?
- 4.NF.7 Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or**
- 5.NF.2 Solve word problems involving addition & subtraction of fractions referring to same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions & number sense of fractions to estimate mentally & assess reasonableness of answers. For example, recognize an incorrect result $2/5 + 1/2 = 3/7$, by observing that $3/7 < 1/2$.**
- 5.NF.3 Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. For example, interpret $3/4$ as the result of dividing 3 by 4, noting that $3/4$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $3/4$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?**
- 5.NF.4 **+** Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
- 5.NF.5 **+** Interpret multiplication as scaling (resizing), by:
 - A. Comparing size of a product to size of one factor on the basis of the size of the other factor, without performing indicated multiplication.
 - B. Explaining why multiplying a given number by a fraction > 1 results in a product greater than the given number (recognizing multiplication by whole numbers > 1 as a familiar case); explaining why multiplying a given number by a fraction < 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.
- 5.NF.6 Solve real world problems involving multiplication of fractions & mixed numbers, e.g., by using visual fraction models or equations to represent the problem.**
- 5.NF.7 Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.**

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- 5.NF.7a **+** Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for $(1/3) \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.
- 5.NF.7b Interpret division of a whole number by unit fraction, & compute such quotients. For example, create a story context for $4 \div (1/5)$, & use visual fraction model to show quotient. Use the relationship between multiplication & division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.
- 5.NF.7c **+** Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $1/3$ -cup servings are in 2 cups of raisins?

Operations & Algebraic Thinking

- 4.OA.1 Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
- 4.OA.2 Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
- 4.OA.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
- 4.OA.4 Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.
- 4.OA.5 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.
- 5.OA.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.

Geometry

- 4.G.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
- 5.G.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).
- 5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.
- 6.G.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

Measurement & Data

- 4.MD.3 Apply the area & perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.
- 4.MD.5 **+** Recognize angles as geometric shapes formed wherever 2 rays share a common endpoint, & understand concepts of angle measurement:
 - A. An angle is measured w/ reference to a circle w/ its center at common endpoint of rays, by considering fraction of circular arc b/t points where 2 rays intersect circle. An angle that turns through $1/360$ of a circle is called a “one-degree angle,” & can be used to measure angles.
 - B. An angle that turns through n one-degree angles is said to have an angle measure of n degrees.
- 4.MD.6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.
- 4.MD.7 Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.
- 5.MD.1 Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.
- 5.MD.2 Make a line plot to display a data set of measurements in fractions of a unit ($1/2, 1/4, 1/8$). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.
- 5.MD.4 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units
- 5.MD.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.
- 5.MD.5a Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole number products as volumes, e.g., to represent the associative property of multiplication.
- 5.MD.5b Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.
- 5.MD.5c **+** Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems

INDIVIDUALIZED INSTRUCTIONAL STUDENT PLAN

ABE Mathematics: TABE Level M

Expressions & Equations

- 6.EE.2** Write, read, and evaluate expressions in which letters stand for numbers.
- 6.EE.2a Write expressions that record operations with numbers and with letters standing for numbers. For example, express the calculation “Subtract y from 5” as $5 - y$.
- 6.EE.2b Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. For example, describe the expression $2(8 + 7)$ as a product of two factors; view $(8 + 7)$ as both a single entity and a sum of two terms.
- 6.EE.3 **+** Apply properties of operations to generate equivalent expressions. For example, apply distributive property to expression $3(2 + x)$ to produce equivalent expression $6 + 3x$; apply distributive property to expression $24x + 18y$ to produce the equivalent expression $6(4x + 3y)$; apply properties of operations to $y + y + y$ to produce equivalent expression $3y$.
- 6.EE.4 **+** Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for.
- 6.EE.5** Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether given number in a specified set makes an equation or inequality true.
- 6.EE.6** Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
- 6.EE.7** Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers.
- 6.EE.8 **+** Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.
- 6.EE.9 **+** Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent & independent variables using graphs & tables, & relate these to the equation. For example, in a problem involving motion at constant speed, list & graph ordered pairs of distances & times, & write the equation $d = 65t$ to represent the relationship between distance and time.

Statistics & Probability

- 6.SP.1 **+** Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, “how old am I?” is not a statistical question, but “how old are the students in my school?” is a statistical question because one anticipates variability in students’ ages.
- 6.SP.2 **+** Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
- 6.SP.4 **+** Display numerical data in plots on a number line, including dot plots, histograms, and box plots.

Ratios & Proportional Relationships

- 6.RP.2 **+** Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. For example, “this recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar.” “we paid \$75 for 15 hamburgers, which is a rate of \$5 per hamburger.”

The Number System

- 6.NS.1 **+** Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for $(2/3) \div (3/4)$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(2/3) \div (3/4) = 8/9$ because $3/4$ of $8/9$ is $2/3$. (in general, $(a/b) \div (c/d) = ad/bc$.) How much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $3/4$ -cup servings are in $2/3$ of a cup of yogurt? How wide is a rectangular strip of land with length $3/4$ mi and area $1/2$ square mi?
- 6.NS.2 **+** Fluently divide multi-digit numbers using the standard algorithm.
- 6.NS.4 **+** Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express $36 + 8$ as $4(9 + 2)$.

This IISP contains information obtained from the source documents listed below.

TABE Test for Adult Assessment: Blue Prints

<https://tabetest.com/resources-2/testing-information/blue-prints/>

TABE Test for Adult Assessment: Crosswalks

https://tabetest.com/PDFs/TABE_11_12_Skills_Crosswalks_Mathematics.pdf

TABE Test for Adult Assessment: TABE 11/12 Individual Profile Report

<https://tabe.drccdirect.com/default.aspx?leapp=Reports&leview=DynamicStudentReports>

Pimentel, Susan. “College and Career Readiness Standards for Adult Education.” *Office of Career, Technical, and Adult Education*, U.S. Department of Education, 2013, lincs.ed.gov/publications/pdf/CCRStandardsAdultEd.pdf.